

# **Perchlorate BMP Workshop**

Best Management Practices  
August 19, 2005

# Perchlorate

- Is an anion formed primarily as an ammonium or potassium salt
- Is an extremely strong oxidizer, yet is stable in the environment at typical contamination concentrations
- Is harmful at concentrations close to detection limits

# The Problem

- 35 perchlorate contamination sites are currently overseen by SWRCB/DTSC impacting 563 drinking water wells
- Perchlorate has been detected in a variety of food items including milk and vegetables
- At dose levels in the low ppb, perchlorate may interfere with human thyroid function
- Infants and prenatales are especially susceptible



# **AB 826**

## **The Perchlorate Contamination Prevention Act**

- “On or before December 31, 2005, the Department [DTSC] shall adopt regulations specifying best management practices for a person managing perchlorate materials.” (HSC §25210.7)

# AB 826 Definitions

- “Perchlorate Materials” – “...perchlorate and all perchlorate-containing materials...”  
(HSC §25210.5)

# AB 826 Goal

“It is the intent of the legislature to ... establish a continuing program for the purpose of preventing contamination from the management of perchlorate material...” (Preamble, AB 826)



# Consistency

- “The Department shall...review existing federal, state, and local laws...to determine the degree to which uniform and adequate requirements already exist, so as to avoid any unnecessary duplication of, or interference with the application of those existing requirements.”

# Sources of Contamination

- Rocket/munitions manufacture
- Rocket/munitions maintenance
- Munitions firing range and training
- Fireworks/flare manufacture
- Disposal/discharge of wastes
- Industrial processes
- Nitrate fertilizers
- Byproducts formation & impurities
- Unknown sources



# What Perchlorate Materials are already “adequately” regulated?

- Hazardous Wastes?
- Hazardous Materials?
- Contaminated Media?
- Food Products?
- DoD?
- Any others?

# What about material with low perchlorate concentration?

- At what concentration does perchlorate pose a risk to water resources?
- Should the perchlorate concentration threshold for BMPs be related to the PHG, MCL, PRG, ESL?
- Intentionally added?

# What about products that contain small quantities of perchlorate?

- Could products with small quantities of perchlorate be safely excluded from BMP requirements?
- Could households be excluded?



# **Specific BMPs under consideration**

- **Packaging requirements**
- **Labeling requirements**
- **Containment requirements**
- **Recordkeeping Requirements**
- **Reporting Requirements**
- **Notification Requirements**
- **Disposal/Discharge requirements**
- **Education**

# Packaging Requirements

- Capable of preventing release under conditions of use and/or storage.
- Waterproof, Water-resistant

# Labeling Requirements

- “Perchlorate Material”
- “Environmental Hazard”
- “Special handling and disposal restrictions apply”
- Contact information
- Emergency response information



# Containment Requirements

- Modeled after Hazardous waste requirements
- Modeled after Hazardous material requirements
- Modeled after fire/building codes
- Develop perchlorate-specific requirements

# Recordkeeping Requirements

- Receiving records
- Shipping records
- Processing records
- Disposal/discharge records
- Treatment records

# Reporting Requirements

- Receiving records
- Shipping records
- Processing records
- Disposal/discharge records
- Treatment records



# Notification Requirement

- As a perchlorate material manufacturer
- As a perchlorate material distributor
- As a perchlorate material processor
- As a perchlorate material consumer
- For perchlorate waste treatment

# Disposal/discharge Requirements

- Disposal to composite-lined landfill with leachate monitoring for perchlorate?
- Discharge to POTW or through an NPDES permit only with specific perchlorate requirements?
- Treatment standards?
- Authorized treatment technologies?

# Education/Training/Information

- Training requirements for personnel using perchlorate in manufacturing or research activities.
- Education requirements for persons using perchlorate-containing products.
- Information requirements for consumers of perchlorate-containing products.



# Timeline

- Public workshops      August 19, 2005  
September 23, 2005  
Additional TBA
- OAL submittal      December 1, 2005
- Implementation date      December 31, 2005

# Conclusions

- AB 826 mandates that DTSC develop BMPs for perchlorate materials.
- AB 826 defines “perchlorate materials” as all perchlorate-containing materials.
- AB 826 instructs that materials already adequately regulated may be excluded.
- Many decisions, limited technical information, short timeline, **INPUT NEEDED**.
- Comments due by August 31, 2005.

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